



SAN FRANCISCO PUBLIC UTILITIES COMMISSION

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MEMORANDUM

Date: July 20, 2005

To: Gary Bardini, PE
Chief, Hydrology Branch
Department of Water Resources

From: Susan Leal, General Manager
San Francisco Public Utilities Commission

Subject: DWR Request for Information Regarding Hetch Hetchy

More than 2.4 million Bay Area residents and more than 75,000 businesses depend on the Hetch Hetchy water system for their public health and economic vitality. The San Francisco Public Utilities Commission (SFPUC) is first and foremost responsible for continued delivery of safe, reliable, high quality drinking water to our customers. The Hetch Hetchy water system and the O'Shaughnessy Dam continue to be integral to the current and future water reliability and water quality of the San Francisco Bay Area.

Attached please find copies of technical reports prepared in response to questions from the Department of Water Resources (DWR) regarding the impact on our water system of dismantling O'Shaughnessy Dam. Report findings are summarized below. My staff and I look forward to working with you; please do not hesitate to contact me if we can be of further assistance.

Cost to Taxpayers

The SFPUC's preliminary analysis indicates that the cost to restore the Hetch Hetchy Valley and keep the San Francisco Bay Area whole would be, at minimum, \$9 billion. Additional unforeseen events, such as environmental mitigation, would likely bring costs to more than \$10 billion. To understand the costs, impacts to the entire water system must be evaluated, as well as the new infrastructure necessary to accommodate these changes. A 1987 Department of Energy review of a proposal to remove the O'Shaughnessy Dam estimated costs to exceed \$6 billion.

Legal Precedents & Institutional Barriers

In their "Response to Legal Issues Raised by Environmental Defense Proposal," Ellison, Schneider & Harris note:

"The complexity...is staggering. It involves: upending San Francisco's entire century-old water supply system; convincing Congress to both revoke the permanent easement it granted in the Raker Act and to compensate San Francisco for that "taking"; convincing the courts to find that San Francisco's vested pre-1914 water rights should be capped or even reduced and effectively reallocated to others; radically revising San Francisco's

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relationship with Modesto and Turlock Irrigation Districts (“Districts”); accepting much greater risk of shortages to its peril as well as that of its customers; somehow providing for the State to assume and implement a role that affirms rights and provides assurances; and conjuring up a means to finance the huge costs of finding replacement water and power.”

Water Quality and Environmental Impacts

In their water quality review of Environmental Defense’s “Paradise Regained: Solutions for Restoring Yosemite’s Hetch Hetchy Valley,” Camp, Dresser & McKee conclude:

“Consideration of the ‘green’ nature of the current SFPUC system is important. Hetch Hetchy represents a pristine watershed combined with a natural treatment unit (i.e., attenuation-sedimentation in Hetch Hetchy Reservoir), operates under complete gravity flow (therefore not susceptible to flow interruptions due to power outages), requires minimal chemical addition, and not only has low energy requirements but generates energy, too. The changes suggested by the ED report would leave a significant ‘environmental footprint’ with the increased energy requirements due to pumping and replacement of hydro power; increased impacts associated with the production, use and disposal of treatment chemicals and their residuals; construction impacts for new system components; and more.”

Central Valley Flood Risk

In their “Assessment of the Flood Control Impacts of the Removal of Hetch Hetchy Dam and Reservoir, Tuolumne River, California,” MBK Engineers note, “Rain flood operation at New Don Pedro could be significantly impacted by the removal of the Hetch Hetchy reservoir storage from the Tuolumne River watershed.”

Reduced Power Generation and Increased Energy Consumption

In his “Review of Environmental Defense’s Estimates of the Cost to Replace Lost Hydropower,” economic and financial consultant Robert Logan writes:

“Replacing hydropower with natural gas fired power is like giving away a fully paid house and moving into a rental unit. You risk running out of money and becoming homeless. Any party that decides to analyze the O’Shaughnessy Dam removal case would be prudent to research the feasibility and cost of acquiring natural gas with assured delivery to Northern California over the remaining useful life of O’Shaughnessy. This should be at least enough natural gas to run 100 MW of combined cycle and 118 MW of combustion turbine power plants. Anything less would not meet the prudence standard as it would place the City at risk of lack of supply and unsustainable monetary losses.”